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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/713,348

11/14/2003

Christopher L. Cagan

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10/21/2008

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EXAMINER

SCARITO, JOHN D

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/713,348	<b>Applicant(s)</b> CAGAN, CHRISTOPHER L.	
	<b>Examiner</b> John D. Scarito	<b>Art Unit</b> 3696	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 42-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/13/2008</u>  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The following is Examiner's response to Applicant's amendment received 07/14/2008 stemming from Examiner's Office Action dated 01/15/2008.

#### ***Status of the Claims***

As per Applicant's response, Examiner acknowledges that Applicant (1) cancelled Claims 1-41 and (2) added new Claims 42-49. As such, Claims 42-49 are currently pending.

#### ***Response to Remarks/Arguments***

##### ***Telephonic Interview***

Regarding the telephonic interview on 05/06/2008, Examiner notes Applicant's comment on "discussing the difference between Applicant's invention and the cited references". [Applicant's Response, page 6, lines 5-6]. However, per Examiner's record, Examiner notes that "Applicant briefly discussed Cole I, the status of the art, and the use of spatial, temporal, and total distortions." [Interview Summary of 05/06/2008]. As such, Applicant has not put on the written record how the cited references are 'different' than Applicant's invention. In particular, Examiner points Applicant to Claims 10, 12 & 14. Per 37 CFR 1.133(b), "[i]n every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant." Here, per MPEP 713.04, "[i]t is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file...".

***Minor Claim Objections***

Examiner withdraws his minor claim objections in the Office Action of 01/15/2008 in view of Applicant's amendments (i.e. claims cancelled).

***Statutory Grounds of Rejection***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

Examiner withdraws his §112-2<sup>nd</sup> paragraph rejections in the Office Action of 01/15/2008 in view of Applicant's amendments (i.e. claims cancelled).

***Claim Rejections - 35 USC § 103***

Applicant erroneously stated that "the Official Action had rejected Claims 1-41 based on 35 U.S.C. 103(a) as being unpatentable over U.S. Publ. No. 2002/0133371 to Cole ("Cole") in view of U.S. Patent Publ. 2003/0191723 to Foretich." [Applicant's Response, page 6, lines 11-13]. To clarify the record the rejections of Claims 1-41 were as follows:

Claims 1-4, 18, 19, 22-27, 32, 33, 37 & 38 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cole I [2002/0133371] in view of Foretich et al [2003/0191723].

Claims 20, 21, & 34-36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cole I [2002/0133371] in view of Foretich et al [2003/0191723] and further in view of Official Notice.

Claims 5 & 6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cole I [2002/0133371] in view of Foretich et al [2003/0191723] and further in view of Cole II [2002/0099650].

Claims 10-17, 28-31 & 39-41 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cole I [2002/0133371] in view of Foretich et al [2003/0191723] in view of Cole II [2002/0099650] and further in view of Official Notice.

Claims 7-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cole I [2002/0133371] in view of Foretich et al [2003/0191723] and further in view of Non-Patent Literature document entitled "Home Price Analyzer: Online Index-Based Residential Property Valuations" (hereinafter HomePrice).

Regardless, in view of Applicant's amendment (i.e. claims cancelled), Examiner withdraws his 35 U.S.C. §103(a) rejections in the Office Action of 01/15/2008 as moot.

### ***Response to Amendments***

#### ***Minor Claim Objections***

Claims 42 & 47-49 are objected to because of the following informalities:

1. As per Claim 42, Examiner questions whether "a spatial data set comprising of real property prices" should be "a spatial data set comprising [a set] of real property prices". Next, Examiner suggests "'the set of spatial variances" and "the set of temporal variances" in lieu of "the spatial variances set" and "the temporal variances set" given that "set" could imply said variances being "set" (i.e. verb).

2. As per Claim 47, Examiner suggests either "real estate price data sets" or "a real estate price data set". In this vein, Examiner questions whether it should be "a real estate *sales* price data set" in line with Applicant's first limitation? Next, Examiner suggests something like "computing at least two years of ratios, said computed ratios selected from a group consisting of said subject property prices to zip code prices from said real estate price data set, said subject property prices to city prices from said real estate price data set, and said subject property prices to county prices from said real estate price data set" for clarity.
3. As per Claims 48 & 49, Examiner points Applicant to substantially similar Claims 47 & 42 respectively.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

Claims 42-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per Claim 42, Applicant introduces "real property prices" in his/her accessing step as associated with "a database". Then Applicant introduces "a set of current and past yearly real property prices". Here, Examiner questions whether the latter "real property prices" are from the former "real property prices" in the database. Similar logic applies to "real property prices for real property with similar characteristics". Are these from the "real property prices" of Applicant's "database". Applicant's repeated use of "real property

prices” and “real property” without recognizing antecedent basis causes ambiguity.

Lastly, Examiner questions what comprises "a fraud score". For purposes of examination, Examiner will assume that it comprises a total distortion "score" including any spatial distortion and temporal distortion computed. [Applicant’s Specification, page 7, lines 26-29].

As per Claim 43, Examiner questions whether Applicant intended “temporal data set” in lieu of “spatial data set”. Here, "sales data for the subject real property" would more align with “current and past yearly real property prices for the subject real property” than “real property prices for real property with similar characteristics as the subject real property”. Here, Examiner points Applicant to Applicant’s Specification, page 6, lines 4-9.

As per Claim 44, Examiner questions whether Applicant intended "temporal data set" in lieu of "spatial data set". Here, an AVM could be used to get “real property prices for real property with similar characteristics as the subject real property”. Here, Examiner points Applicant to Applicant’s Specification, page 6, lines 4-9.

As per Claim 45, Examiner questions whether Applicant intended "temporal data set" in lieu of "spatial data set". Here, Examiner points Applicant to Applicant’s Specification, page 6, lines 4-9.

As per Claim 46, Examiner finds Applicant's "prices of real property prices" confusing. Aren't they still "real property prices". Further, Examiner questions how "prices" or "real property prices" consist of "same zip code, same postal city, and same county". Does Applicant intend his/her "real property prices" to be associated with real property located

in the same zip code, same postal city, or same county? Further, Applicant should make clear that not only are the properties of the spatial index from the same zip code, same postal city or same county, but also whether this is the same zip code, same postal city or same county as the subject real property.

As per Claim 47, Applicant's language appears to literally read that "a real estate price data set" consists of zip code, city code, and county code. Examiner questions whether Applicant intended his/her "real estate price data set" to be associated with real estate price data from a zip code, a city code, or a county code. Next, Examiner questions whether "subject property prices" is related to "a subject real property". Lastly, Examiner questions whether all of the "prices" should be "sales prices" in view of Applicant's first limitation. Lastly, Examiner questions what comprises "a fraud score". For purposes of examination, Examiner will assume that it comprises a total distortion "score" including any spatial distortion and temporal distortion computed. [Applicant's Specification, page 7, lines 26-29].

As per Claims 48 & 49, Examiner points Applicant to substantially similar Claims 47 & 42 respectively.



***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 42-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Here, the state of the law with respect to statutory subject matter eligibility under §101 is evolving and is presently an issue in several cases under appeal at the Federal Circuit with regard to process claims. As presently understood, based on Supreme Court precedent and recent Federal Circuit decisions, [see *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)] a §101 statutory process must (1) be tied to another statutory class (e.g. such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met, a method is not a patent eligible process under §101 and should be rejected as being directed to non-statutory subject matter.

For example, a method claim that recites purely mental steps (e.g. can be performed by mental process or human intelligence alone) would not qualify as a statutory process. To qualify as a §101 statutory process, the claim should (1) positively recite another statutory class (e.g. thing or product) to which it is tied (e.g. by identifying the apparatus that accomplishes the method steps) or (2) positively recite the subject matter that is

being transformed (e.g. by identifying the material that is being changed to a different state).

As per Claim 42, Examiner asserts that said method steps could be performed by merely mental steps (e.g. can be performed by mental process or human intelligence alone).

Here, Applicant does not adequately tie his/her steps to another statutory class to qualify as a §101 statutory process. Examiner notes that a “database” is merely an arrangement of data and does not satisfy the requirement for a tie to another statutory class. As such, Applicant should consider what is “accessing”?, what is “building”?, and what is “computing”?. Here, Examiner notes that mere recitation of a “system” or “network” would be inadequate as it could, reasonably, be broadly interpreted to include a group of people using their mental capacities. Further, nominal or token recitations (i.e. in a claim preamble) of structure in an otherwise ineligible method would fail to make the method a statutory process. Applicant should consider what structure is necessary to complete his/her method steps to take said Claims out of being interpreted as executed via purely mentally supported activities.

As per Claims 43-46, said Claims are rejected as they fail to correct the deficiencies of Claim 42 above.

As per Claim 47, said Claim is rejected under the same rationale as discussed for Claim 42 above. As such, Applicant should consider what is “accessing”?, what is “obtaining”?, what is “building”?, what is “computing”? and what is “reporting”?.

*Allowable Subject Matter*

Claims 42-49 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. § 112, 2nd paragraph, set forth in this Office Action. Further, as per Claims 42-47, said Claims must also overcome the rejections under 35 U.S.C. § 101 set forth in this Office Action.

The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record, specifically Cole [2002/0133371], HomePrice & Cole [2002/0099650], taken alone or in combination do not disclose or fairly teach the following limitations:

computing a spatial distortion based on the [set of] spatial variances OR computing a spatial distortion by determining a maximum value in the spatial variance and subtracting the maximum value from the current year spatial variance where Examiner interprets “spatial distortion” to include (X) minus (Y) where (X)= a contemplated year’s spatial variance and (Y)=the maximum (X) derived in all previous years. [Applicant’s Specification, page 13, lines 8-9].

computing a total distortion by adding the temporal distortion to the spatial distortion where Examiner interprets "total distortion" to include the sum of the spatial distortion and the temporal distortion for a contemplated year. [Applicant's Specification, page 14, lines 14-17].

providing a fraud score to indicate the likelihood of fraud based on the total distortion OR reporting a fraud score to indicate the likelihood of fraud based on the spatial distortion where Examiner interprets “fraud score” to include the sum of any spatial distortion and temporal distortion computed [Applicant's Specification, page 7, lines 26-29].

Examiner's cited reference Cole ('371) generally teaches a fraud prevention process to determine whether a proffered valuation is "reasonable" [paragraph 24]. Here, Cole ('371) uses a "neighborhood code" to identify "homogeneous" comparable properties. [paragraph 98]. In this vein, Cole generally teaches the comparison of ratios (i.e. actual sales amount to the property value, SVT) and acknowledges that "most will be relatively the same, with a few much lower, and a few much higher than the rest" [paragraphs 101 & 103]. Here, Cole ('371) teaches calculating a "relative difference between [] records" and sets a threshold on an acceptable relative difference amongst the ratios to set upper and lower limits for reasonable, consistent values. [see paragraph 104]. Further, Cole ('371) teaches the calculation of a "relative limit" "generally applicable" for evaluating consistency. [paragraph 108, i.e. similar to Applicant's fraud score]. However, Cole ('371) does not explicitly disclose computing a spatial distortion.

Examiner's cited NPL, HomePrice, generally teaches the analysis of historical residential sales records by "zip+4" and suggests evaluating "median sale price" and "area price trends" [see HomePrice, page 1, paragraphs 2, 17 & 18]. However, HomePrice does not explicitly disclose computing a spatial distortion.

Examiner's cited reference Cole ('650) generally teaches establishing a "range of value for the particular property", "the historical range of sales prices in the area", as well as a "market variance" [paragraphs 35-37], when evaluating a requested mortgage loan amount. Despite, Cole ('650) acknowledging (1) "significant price fluctuations" in

markets when establishing reasonableness of a value [paragraph 67] and (2) comparison of a property's ratio (i.e. LTV) with "the neighborhood high value" [paragraphs 88-91], Cole ('650) does not explicitly disclose computing a spatial distortion.

Here, Applicant's "spatial distortion" assesses (X), the percentage magnitude of a subject property's value against the median market value of comparables for a given year, versus (Y), the maximum (X) for all previous years. This appears to compensate, or take into account, the natural fluctuations between a subject property's value and the median market value of comparables for any given year. (e.g. In 2008, the spatial variation is 12%. However in view of previous years, the spatial variance peaked at 10% in 2002. As such, the only variation one should be concerned with is a 2% difference rather than a 12% difference. Here, Applicant makes 10%, in the year 2002, his/her pseudo benchmark as a natural fluctuation between a subject property and the median market value of comparables for that year.) Further, as a whole, the combination of said "spatial distortion" with a "temporal distortion" to provide a "total distortion" as a "fraud score" for purposes to "indicate the likelihood of fraud" is not disclosed or fairly taught by the prior art of record.

***Examiner Clarification Regarding Applicant's Defined Terms***

Examiner indicates the following to clarify “temporal variance”, “spatial variance” and “temporal distortion” since Applicant’s use of these terms may not be readily apparent to one of skill in the art.

Regarding Applicant’s limitation: building a set of temporal variances

Here, Examiner interprets “temporal variances” to consist of (1) the ratios comprising a valuation of the subject property at a contemplated year divided by the subject property’s valuation one year prior and (2) the ratios comprising a median valuation of the properties with similar characteristics as the subject property at a contemplated year divided by the median valuation of the properties with similar characteristics as the subject property one year prior. [see Applicant’s Specification, page 12, lines 13-18]. Examiner interprets this as merely the appreciation or depreciation year over year (i.e. for a subject property or the median comparable property) as would be appreciated in the art. (e.g. the subject property appreciated 8% since last year, the median comparable property appreciated 5% since last year, etc.)

Regarding Applicant’s limitations: building a set of spatial variances AND building a spatial variance by computing at least two years of ratios of subject property prices to a group consisting of zip code, city and county prices

Here, Examiner interprets “spatial variances” to consist of the ratios comprising a contemplated year’s temporal data divided by that year’s spatial data [Applicant’s Specification, page 11, line 5]. Examiner interprets this as merely a percentage comparison to market comparables as would be appreciated in the art (e.g. the

subject property's value is 30% higher than the comparable property value in that geographic area)

Regarding Applicant's limitation: computing a temporal distortion based on the [set of ] temporal variances

Here, Examiner interprets "temporal distortion" to include a contemplated year's temporal variance (i.e. calculation (1) above) minus that year's temporal variance (i.e. calculation (2) above). [Applicant's Specification, page 14, lines 1-3].

Examiner interprets this as merely the difference in the appreciation or depreciation of the subject property year over year versus the appreciation or depreciation of the median comparable property year over year as would be appreciated in the art (e.g. continuing with the above example...the subject property appreciated 3% more than the median comparable property since last year)

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Scarito whose telephone number is (571) 270-3448. The examiner can normally be reached on M-Th (7:30-5:00), Alternate F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dixon can be reached on (571) 272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John D. Scarito/  
Examiner, Art Unit 3696

John D. Scarito  
Examiner  
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/THOMAS A DIXON/  
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